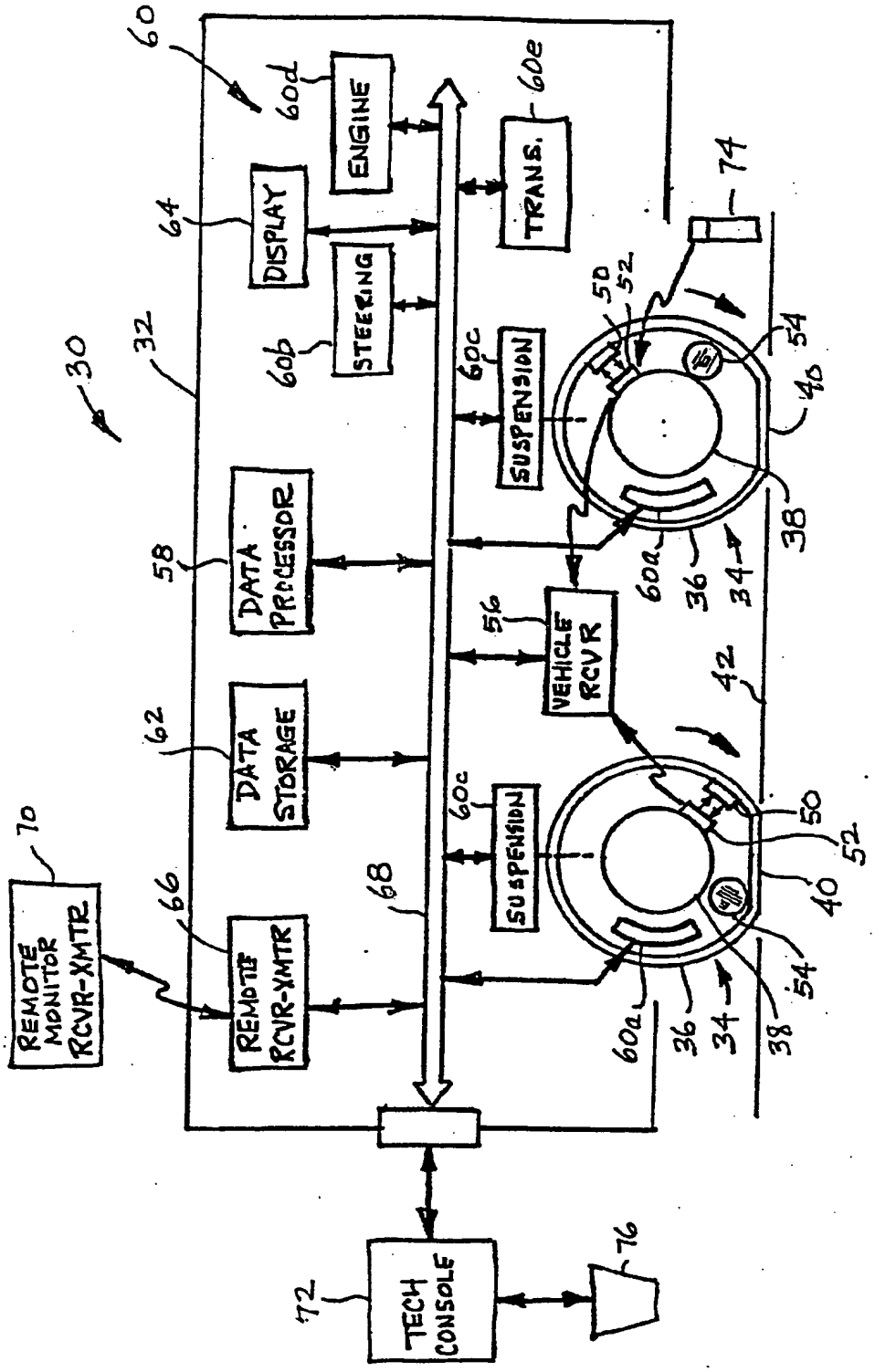


FIG. 1
(Prior Art)

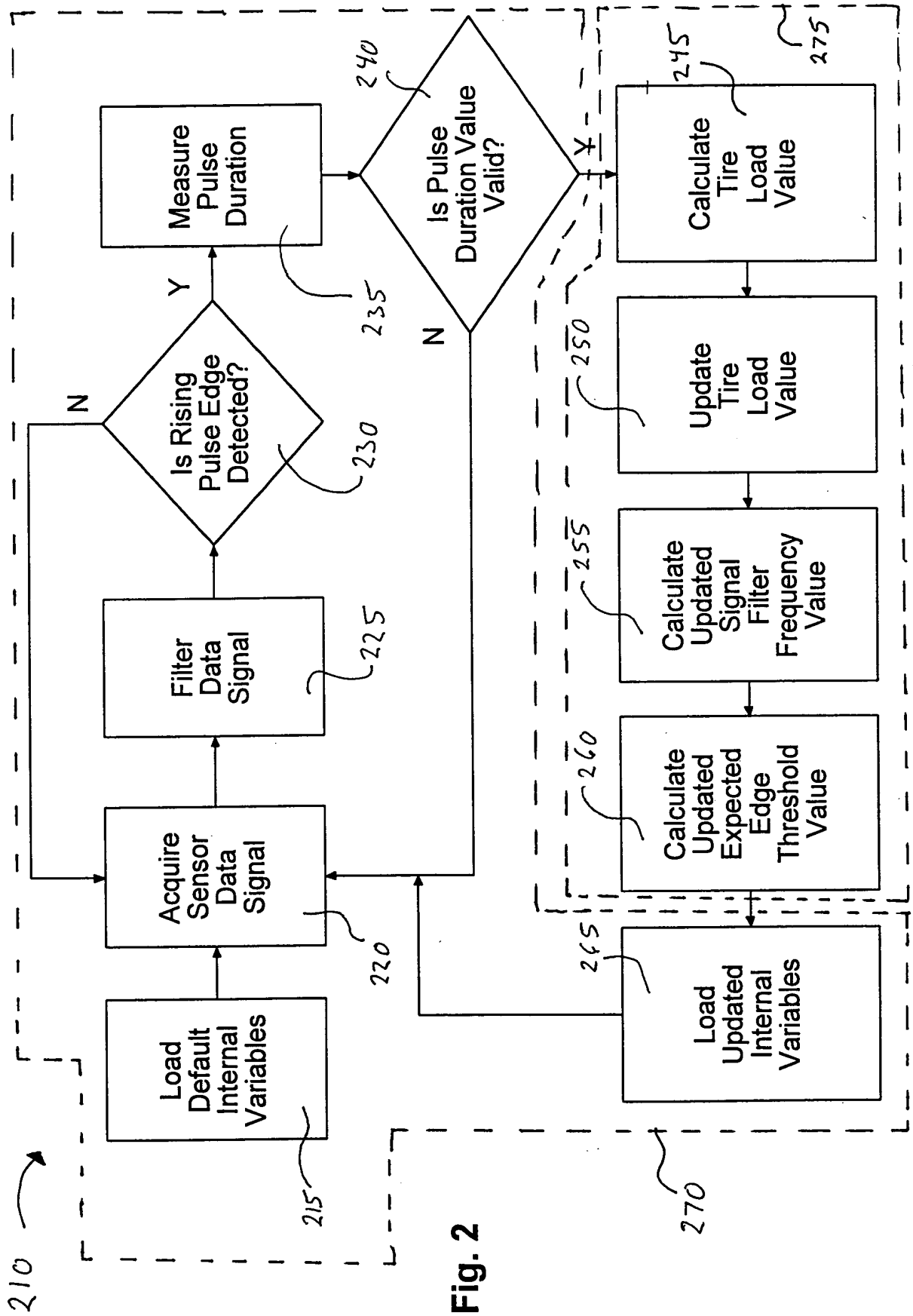

210
Load Default Internal Variables
215
Acquire Sensor Data Signal
220
Filter Data Signal
225
Is Rising Pulse Edge Detected?
230
N
Y
Measure Pulse Duration
235
Is Pulse Duration Value Valid?
240
N
Y
Load Updated Internal Variables
265
270
Calculate Updated Expected Edge Threshold Value
260
Calculate Updated Signal Filter Frequency Value
255
Update Tire Load Value
250
Calculate Tire Load Value
245
275

Fig. 2

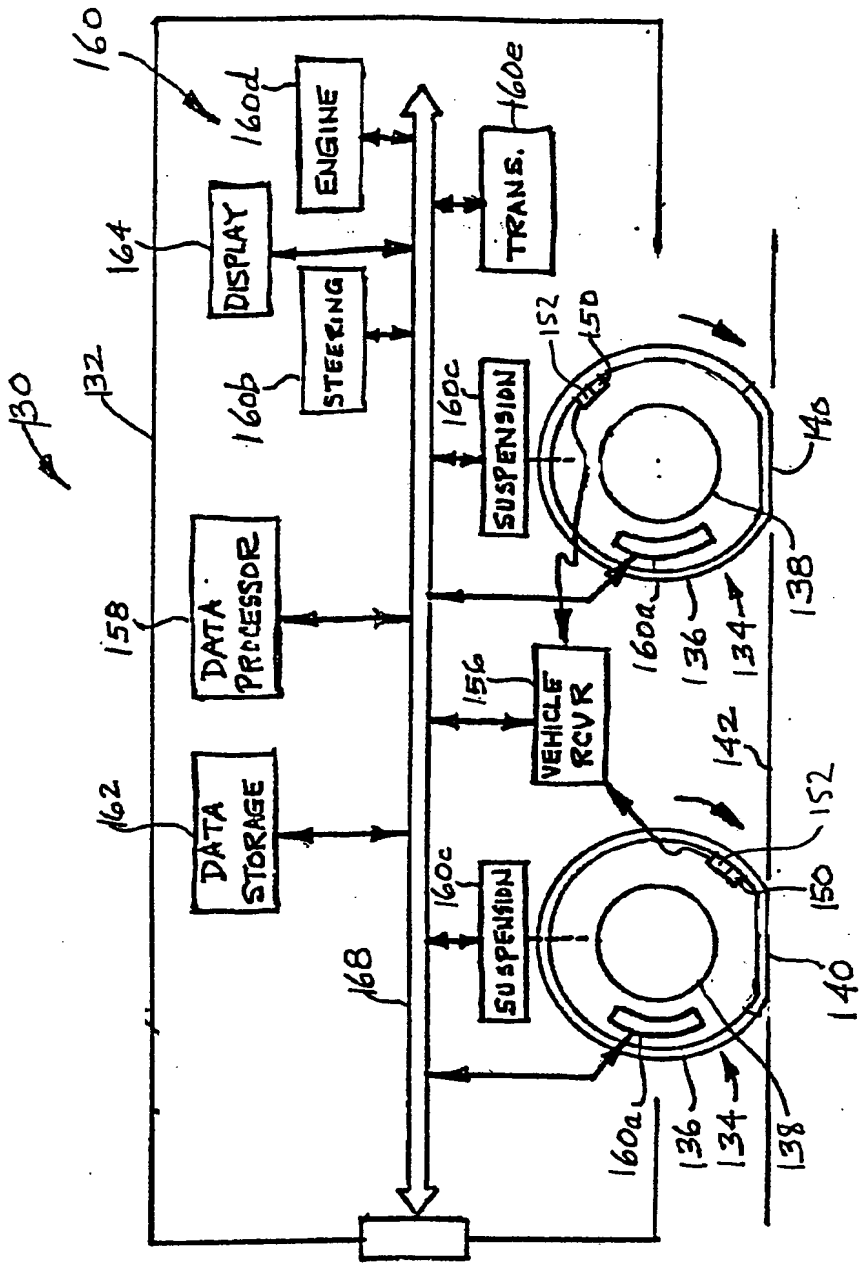

160
160d
ENGINE
160e
TRANS.
164
DISPLAY
STEERING
160b
130
132
160c
SUSPENSION
152
150
146
158
DATA PROCESSOR
156
VEHICLE RCVR
142
162
DATA STORAGE
168
160a
136
134
138
140

FIG. 3

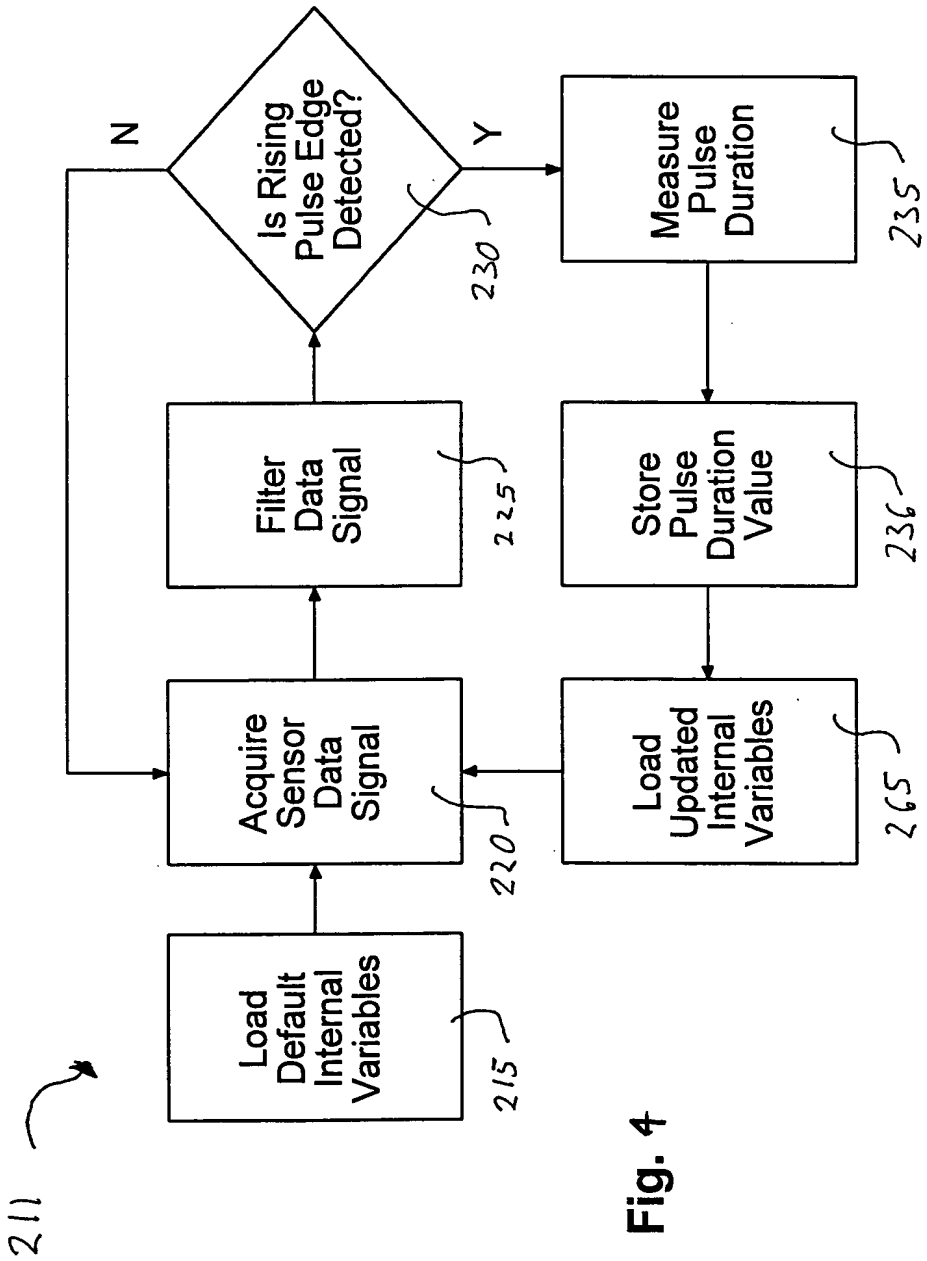

211
Load Default Internal Variables
215
Acquire Sensor Data Signal
220
Filter Data Signal
225
Is Rising Pulse Edge Detected?
230
N
Y
Measure Pulse Duration
235
Store Pulse Duration Value
236
Load Updated Internal Variables
265

Fig. 4

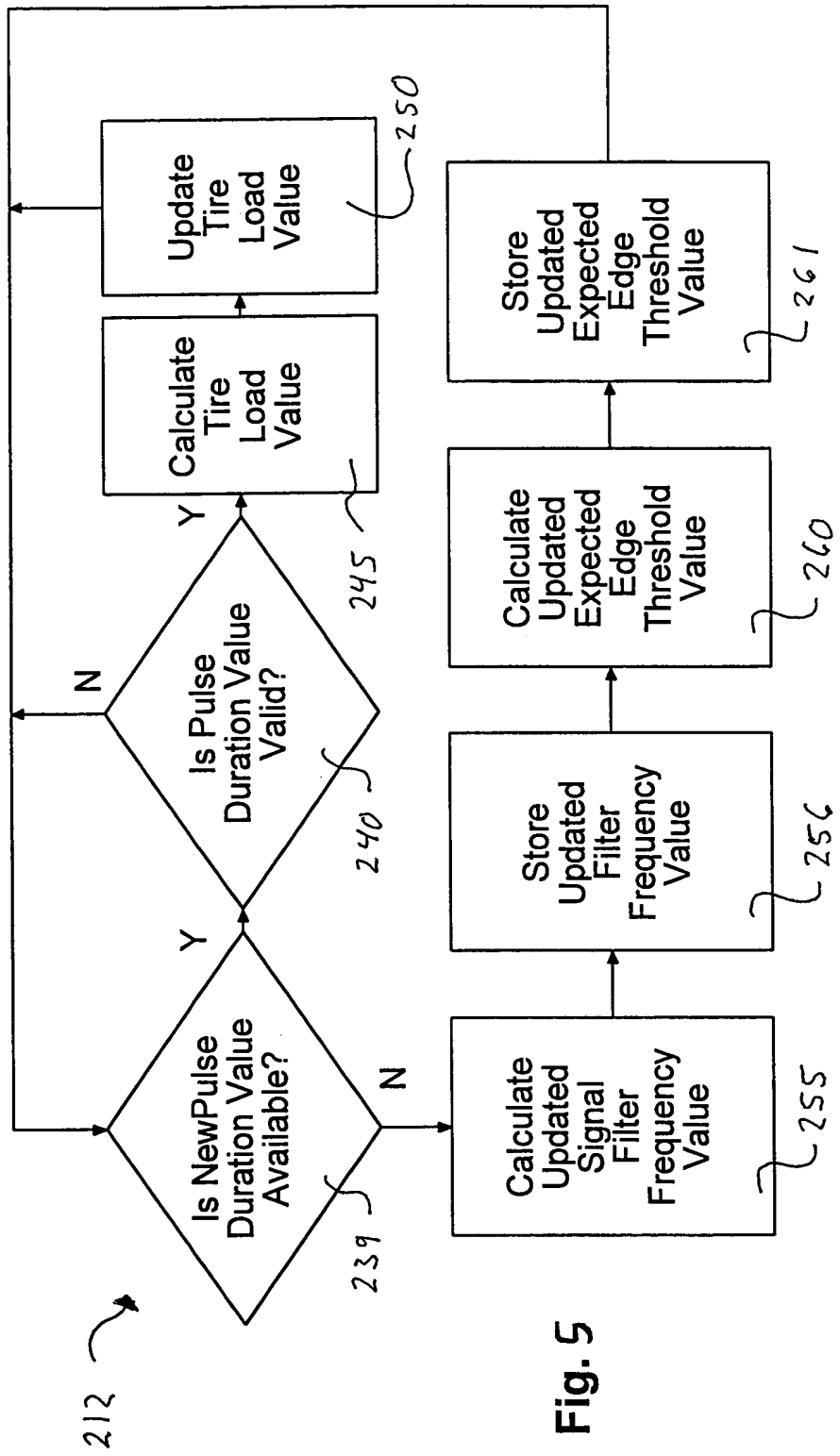
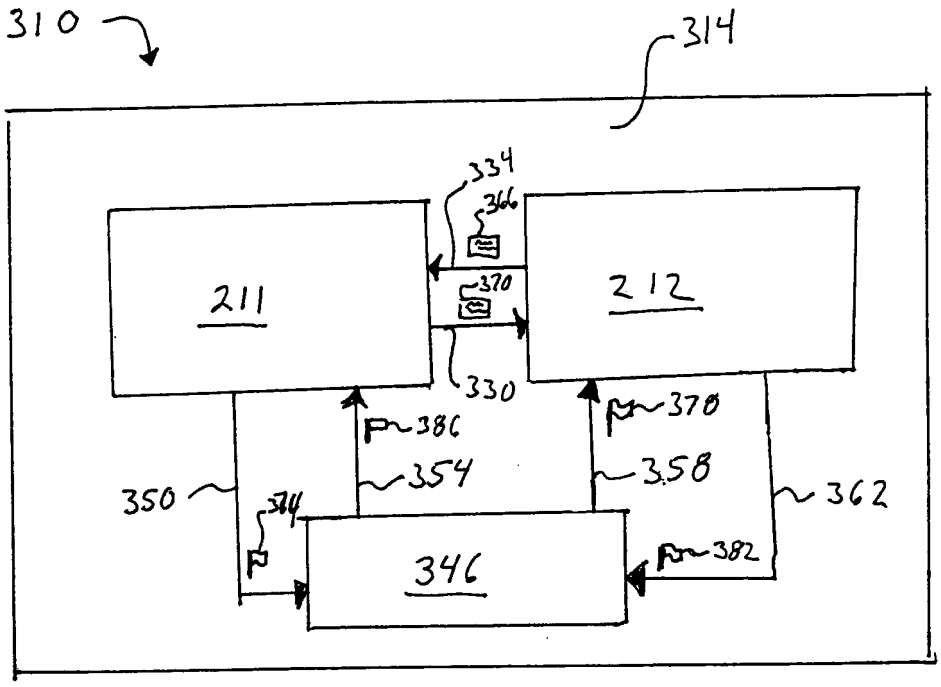

Update Tire Load Value
250
Calculate Tire Load Value
245
Is Pulse Duration Value Valid?
240
Is NewPulse Duration Value Available?
239
212
Y
N
Y
N
Calculate Updated Signal Filter Frequency Value
255
Store Updated Filter Frequency Value
256
Calculate Updated Expected Edge Threshold Value
260
Store Updated Expected Edge Threshold Value
261

Fig. 5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370
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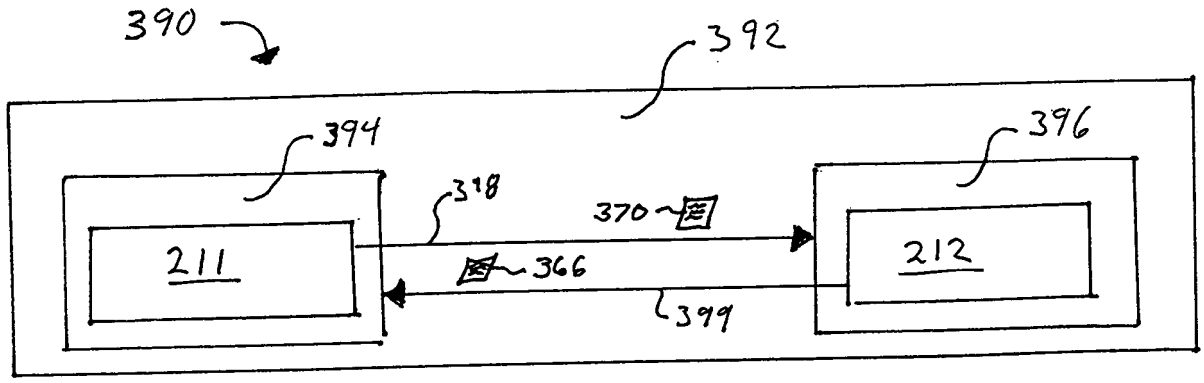
382

Fig. 6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392
394
396
398
370
211
212
366
399

Fig. 7